

What is claimed:

1. In a model railroad layout comprising a track secured to a mechanical ground and having a first rail spaced apart by a distance "D" from a second rail, and a track  
5 segment removed therefrom to establish a space, a first track end and a second track end, a removable in-situ wheel cleaning apparatus for model railroad locomotives and/or cars adapted to operate on the track comprising:

a cleaning segment sized to removably fit within the space and comprising a first rail interface element spaced apart from a second rail interface element by  
10 approximately distance "D" wherein the first rail interface element comprises a cleaning surface for contacting the rail contacting surface of at least one wheel of a model railroad locomotive and/or car placed thereon; and

at least one connector means for electrical coupling the first rail with the first rail interface element when the cleaning segment occupies the space created by the  
15 removed track segment.

2. The apparatus of claim 1 wherein the connector means comprises a spring rail contact having a conductor receiving base portion and at least one biased rail  
20 contacting portion extending from the base portion.

3. The apparatus of claim 2 wherein the connector means is coupled to one of the layout rails and the biased rail contacting portion extends into the space created by the removed segment.

25 4. The apparatus of claim 1 wherein the connector means comprises  
a first contact having a conductor receiving portion and defining a hole;  
a second contact having a conductor receiving portion and a tab wherein the second contact is located proximate to the first contact when the cleaning segment occupies the space created by the removed track segment; and

a conductive rotary element having a shaft and an extending contacting arm whereby when the shaft is located in the hole and rotated, the contacting arm contacts the tab of the second contact.

- 5     5.     The apparatus of claim 4 wherein the first contact conductor receiving portion is operatively linked to the first rail and the second contact conductor receiving portion is operatively linked to the first rail interface element of the cleaning segment.
6.     The apparatus of claim 1 wherein the connector means functions to retain the  
10     cleaning segment to the mechanical ground.
7.     The apparatus of claim 1 wherein the first rail interface element further comprises one of a rail extension extending from the cleaning surface or a pair of rail extensions extending in opposite directions from the cleaning surface, and wherein the second rail  
15     interface element comprises one of a continuous rail, a second cleaning surface, a rail extension extending from a second cleaning surface or a pair of rail extensions extending in opposite directions from a second cleaning surface.
8.     The apparatus of claim 1 wherein the second rail interface element further  
20     comprises a cleaning surface for contacting the rail contacting surface of at least one wheel of the model railroad locomotive and/or car placed thereon, and at least two connector means for electrical coupling the first rail with the first rail interface element and the second rail with the second rail interface element when the cleaning segment occupies the space created by the removed track segment.
- 25     9.     The apparatus of claim 1 further comprising at least one guide block adjacent to one of the first or second rail interface elements to limit lateral movement of the model railroad locomotive and/or car when a portion thereof is placed on the conductive abrasive surface.

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10. The apparatus of claim 1 further comprising a source of motive power operatively linked to the first rail interface element whereby upon application of power to the source of motive power, the cleaning surface is caused to move.

11. In a model railroad layout comprising a track secured to a mechanical ground and having a first rail spaced apart by a distance "D" from a second rail, and a track segment removed therefrom to establish a space, a first track end and a second track end, a removable in-situ wheel cleaning apparatus for model railroad locomotives and/or cars adapted to operate on the track comprising:

a support platform having an obverse side and a reverse side, and sized to fit within the space created by the removed track segment;

a track segment affixed to the obverse side comprising a first rail spaced apart from a second rail by approximately distance "D" whereby when the support platform occupies the space created from the removed track segment and is abutted against the first and second track ends, and the obverse side is oriented up, the track segment is substantially coextensive with the first and second track ends; and

a cleaning segment affixed to the reverse side comprising a first rail interface element spaced apart from a second rail interface element by approximately distance "D" wherein the first rail interface element comprises a cleaning element whereby when the support platform occupies the space created from the removed track segment and is abutted against the first and second track ends, and the reverse side is oriented up, the first and second rail interface elements are substantially coextensive with the first and second track ends.

12. The apparatus of claim 11 further comprising at least one connector means for acquiring electrical power from a layout rail and delivering it to at least the track segment.

13. The apparatus of claim 12 wherein the conductor means comprises:

a first contact having a conductor receiving portion and defining a hole;

a second contact having a conductor receiving portion and a tab wherein the second contact is located proximate to the first contact when the cleaning segment occupies the space created by the removed track segment; and

5 a conductive rotary element having a shaft and an extending contacting arm whereby when the shaft is located in the hole and rotated, the contacting arm contacts the tab of the second contact.

14. The apparatus of claim 13 wherein the first contact conductor receiving portion is operatively linked to the first rail and the second contact conductor receiving portion is  
10 operatively linked to one rail of the track segment.

15. The apparatus of claim 11 further comprising at least one connector means for acquiring electrical power from a layout rail and delivering it to at least the cleaning segment wherein the at least one cleaning element comprises a conductive surface;  
15 and

the second rail interface comprises one of a continuous rail, a second cleaning element comprising a conductive surface, a rail extension extending from a second cleaning element comprising a conductive surface or a pair of rail extensions extending in opposite directions from a second cleaning element comprising a conductive surface.  
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16. The apparatus of claim 11 wherein the second rail interface comprises one of a continuous rail, a second cleaning element comprising a conductive surface, a rail extension extending from a second cleaning element comprising a conductive surface or a pair of rail extensions extending in opposite directions from a second cleaning  
25 element comprising a conductive surface; and

at least two connector means for electrical coupling the first layout rail with the first rail interface and the second layout rail with the second rail interface when the cleaning segment occupies the space created by the removed track segment.

17. In a model railroad layout comprising a track secured to a mechanical ground and having a first rail spaced apart by a distance "D" from a second rail, and a track segment removed therefrom to establish a space, a first track end and a second track end, a wheel cleaning assembly for model railroad locomotives and/or cars adapted to operate on the track comprising:

a replacement track segment comprising a first rail spaced apart from a second rail by approximately distance "D" whereby when the replacement track segment occupies the space created from the removed track segment and is abutted against the first and second track ends, the replacement track segment is substantially coextensive with the first and second track ends;

a cleaning segment comprising a first rail interface element spaced apart from a second rail interface element by approximately distance "D" wherein at least one rail interface is electrically conductive and wherein the first rail interface element comprises a cleaning element whereby when cleaning segment occupies the space created from the removed track segment and is abutted against the first and second track ends, the first and second rail interface elements are substantially coextensive with the first and second track ends; and

a first connector means for acquiring power from the first layout rail to electrically link the first layout rail with one of the first replacement track segment first rail or the first rail interface, and a second connector means for acquiring power from the second layout rail to electrically link the second layout rail with one of the second replacement track segment second rail or the second rail interface.

18. The apparatus of claim 17 wherein the first and second connector means are selected from the group consisting of a spring rail contact, a rotary contact arrangement, a lateral contact arrangement using power taps where the replacement track segment and the cleaning segment are removable relative to the track layout, and a lateral contact arrangement using power taps where the replacement track segment and the cleaning segment are rotatable relative to the track layout.

19. The apparatus of claim 17 wherein the replacement track segment and the cleaning track segment are affixed in symmetrical opposition to a common support platform that is rotatably positioned relative to the track layout so that the replacement track segment is exposed and is coextensive with the first and second track ends, and  
5 upon rotation the cleaning track segment is exposed and is coextensive with the first and second track ends.

20. The apparatus of claim 18 further comprising a bay for receiving the support platform wherein the bay includes a pair of track extensions whereby when the bay is  
10 integrated into the layout track, the extensions are substantially coextensive with the first and second track ends and one of the rails of the replacement track segment or the first and second rail interface elements of the cleaning segment.